

FIG.1

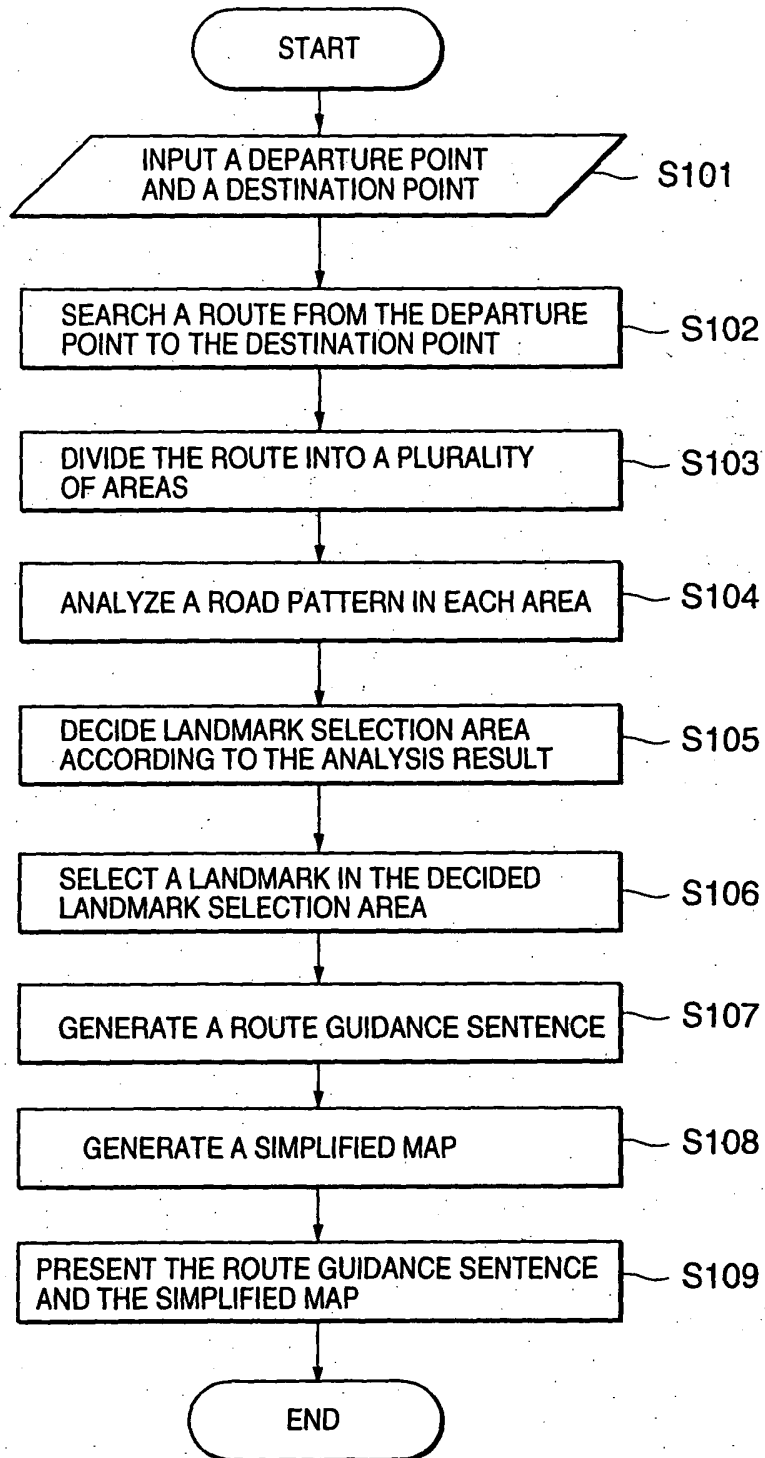


FIG.2

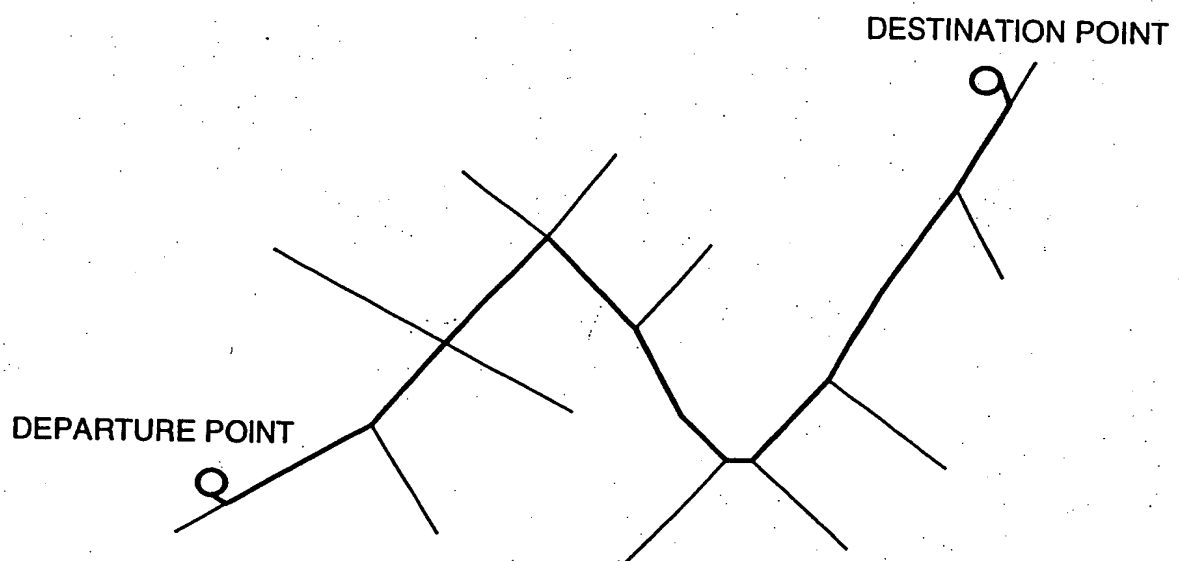


FIG.3

ID	NUMERICAL
POSITION	(X, Y)
NAME	CHARACTER SEQUENCE
THE NUMBER OF ARKS TO BE CONNECTED	NUMERICAL VALUE
ARRANGEMENT OF ARK ID TO BE CONNECTED	ARRANGEMENT OF NUMERICAL VALUE

**FIG.4A**

ID	NUMERICAL VALUE
POSITION OF STARTING POINT	( $X_0$ , $Y_0$ )
POSITION OF END POINT	( $X_1$ , $Y_1$ )
NAME	CHARACTER SEQUENCE
ROAD WIDTH	NUMERICAL VALUE

**FIG.4B**

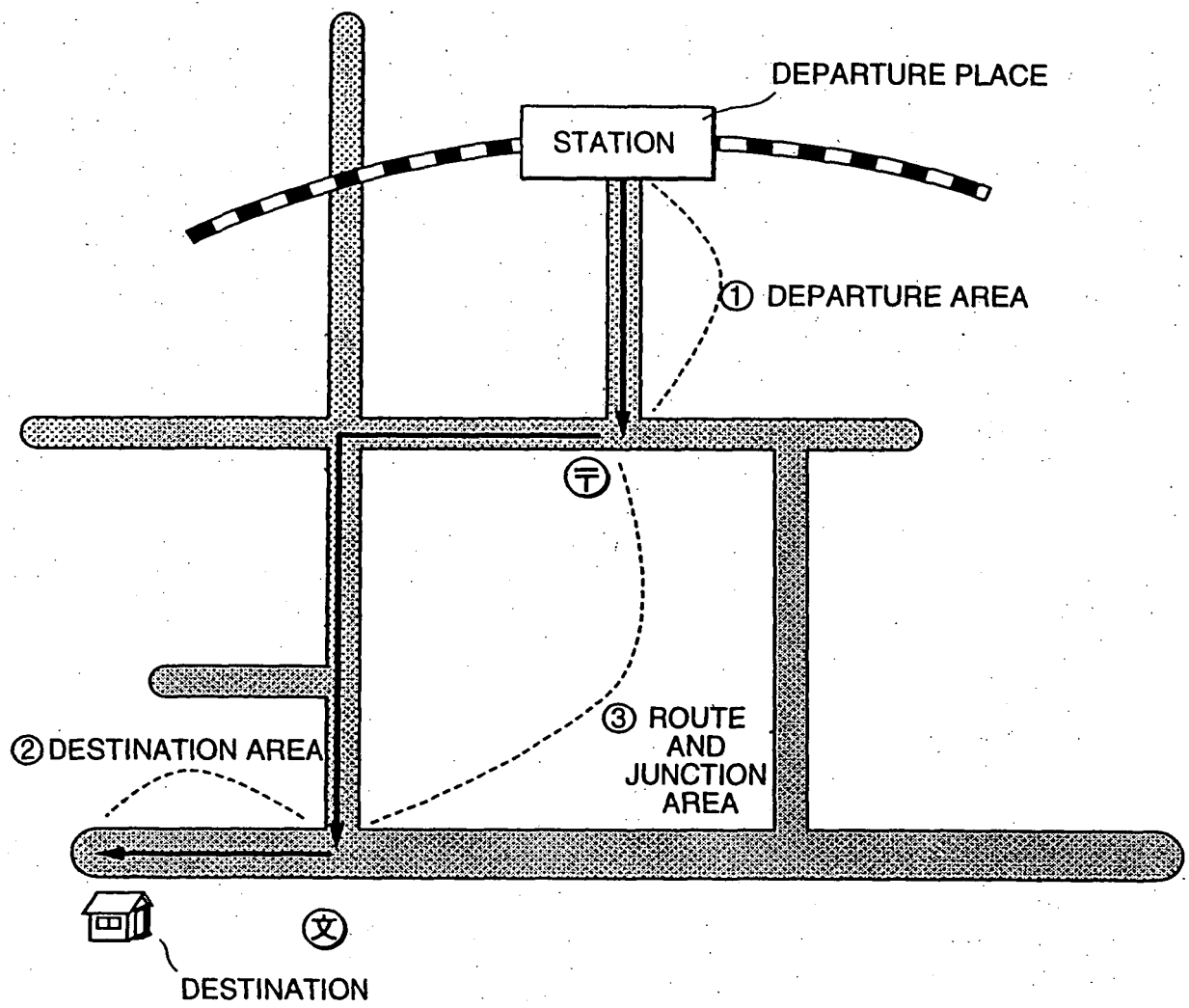


FIG.5

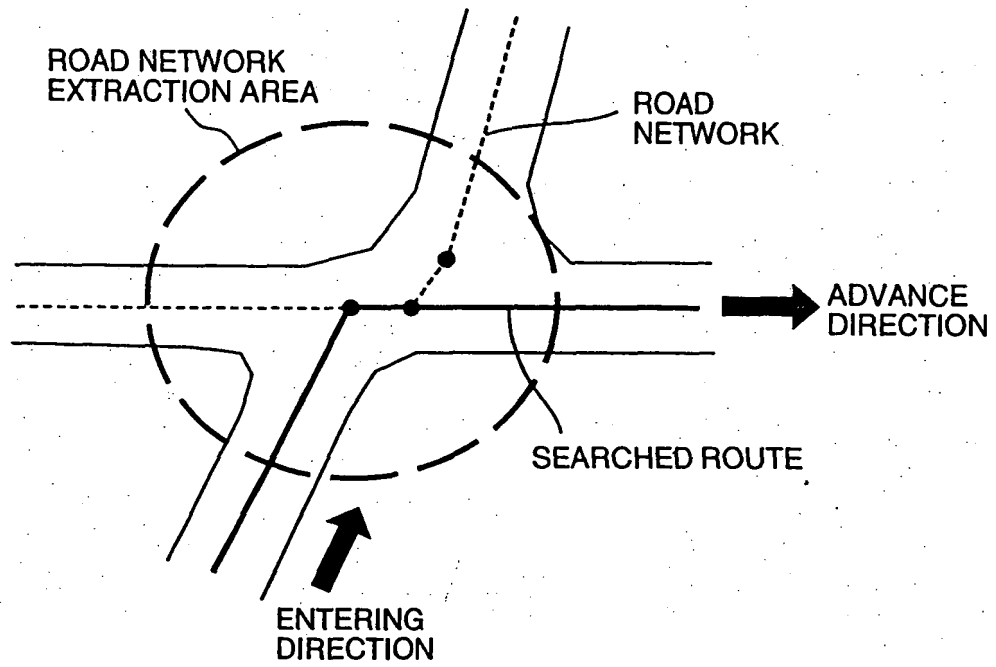


FIG.6A

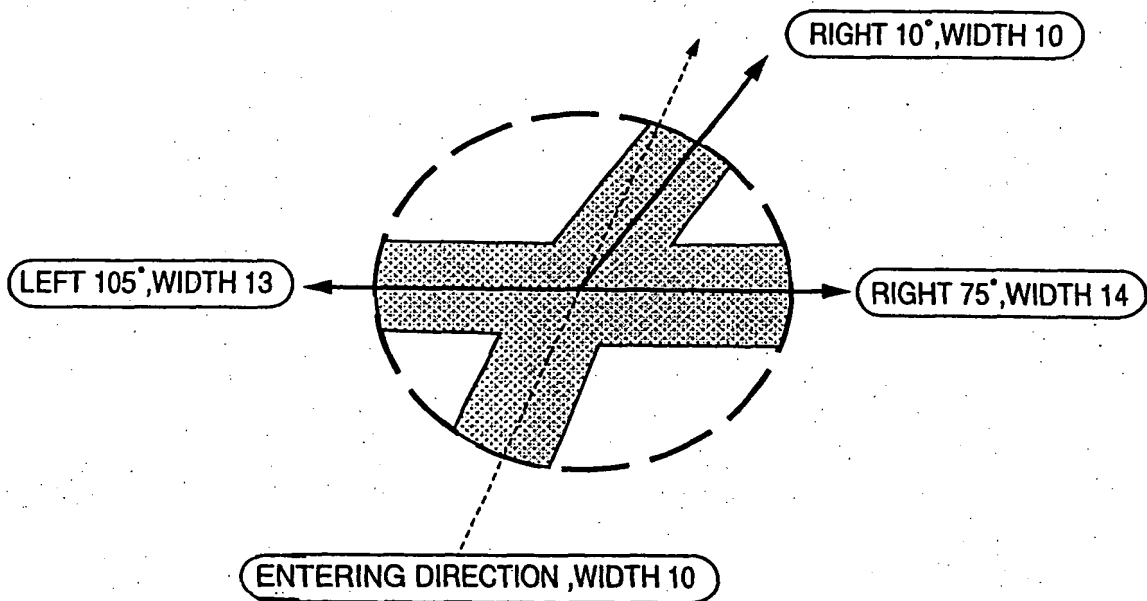


FIG.6B

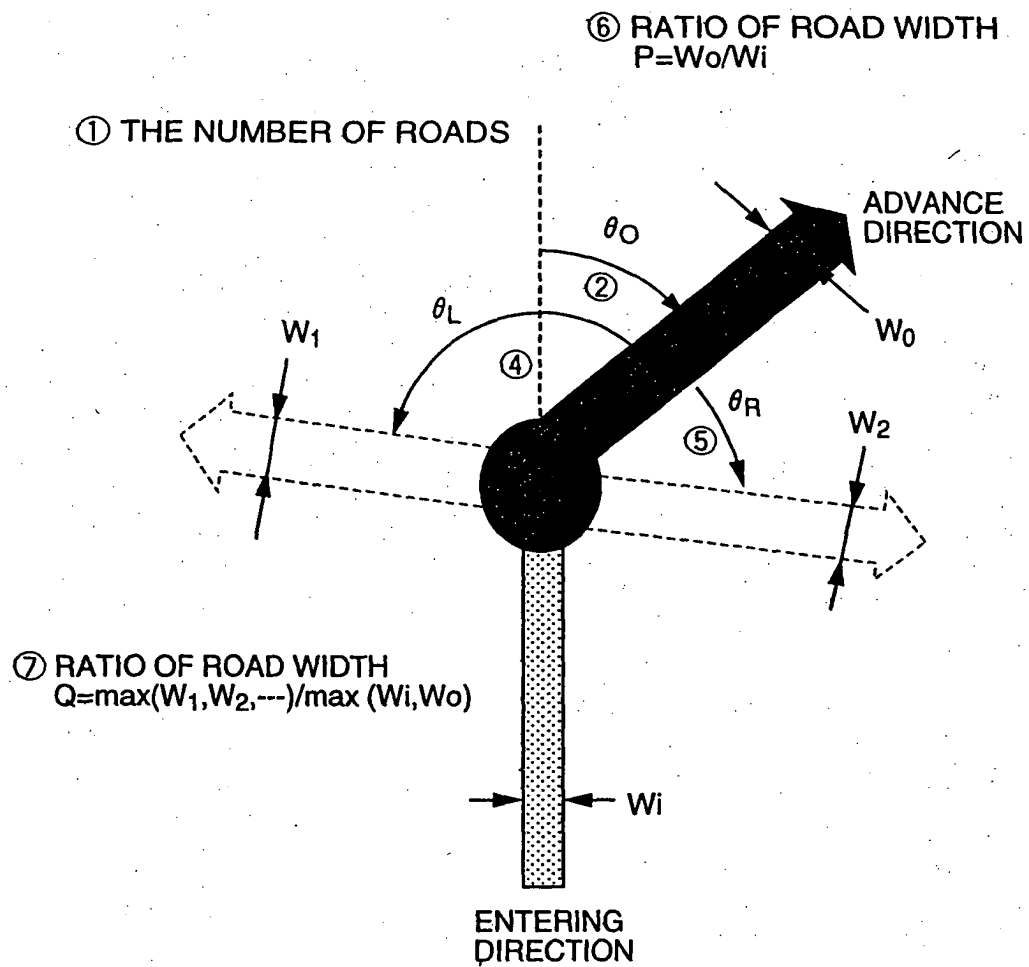


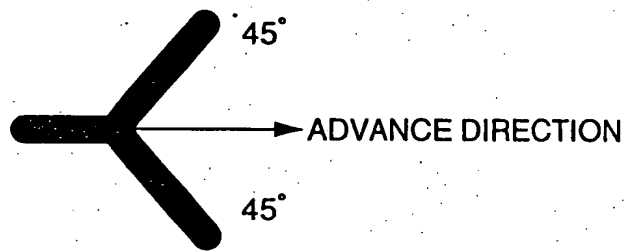
FIG.7

ROAD		EXPRESSION OF ROUTE GUIDANCE	ANGLE ( ° ) OF EACH ROAD		
NUMBER	PATTERN		ANGLE DIFFERENCE FOR ENTERING DIRECTION		
			$\theta_0$	$\theta_1$	$\theta_2$
2	NON- JUNCTION	FOLLOW A ROAD	0~45		
		RIGHT -TURN	45~135		
		LEFT -TURN	225~135		
3	JUNCTION ( <u>FORKED ROAD</u> )	T-CROSSING or THE END	70~110	250~290	
		Y-CROSSING	30~70	290~330	
4	JUNCTION ( <u>THREE- FORKED</u> ) ROAD	GO STRAIGHT, CROSS THE ROAD	340~360 0~20	70~110	250~290
		TURN TO THE RIGHT AT THE JUNCTION	70~110	340~360 0~20	250~290
		TURN TO THE LEFT AT THE JUNCTION	250~290	70~110	340~360 0~20

(  $\theta_0, \theta_1, \theta_2$  : ANGLE DIFFERENCE BETWEEN AN EXTENSION OF ENTERING ROAD AND EACH  
ROAD IN A CLOCKWISE DIRECTION )

FIG.8



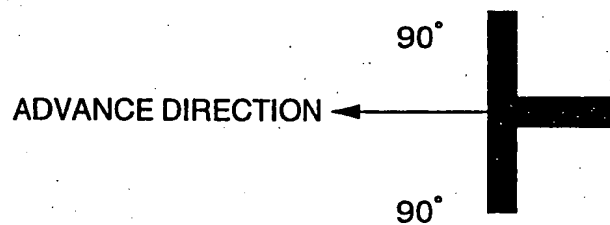


$n=3$

$$\theta_L = \theta_R = 45^\circ$$

JUNCTION PATTERN : Y-CROSSING

**FIG.9A**

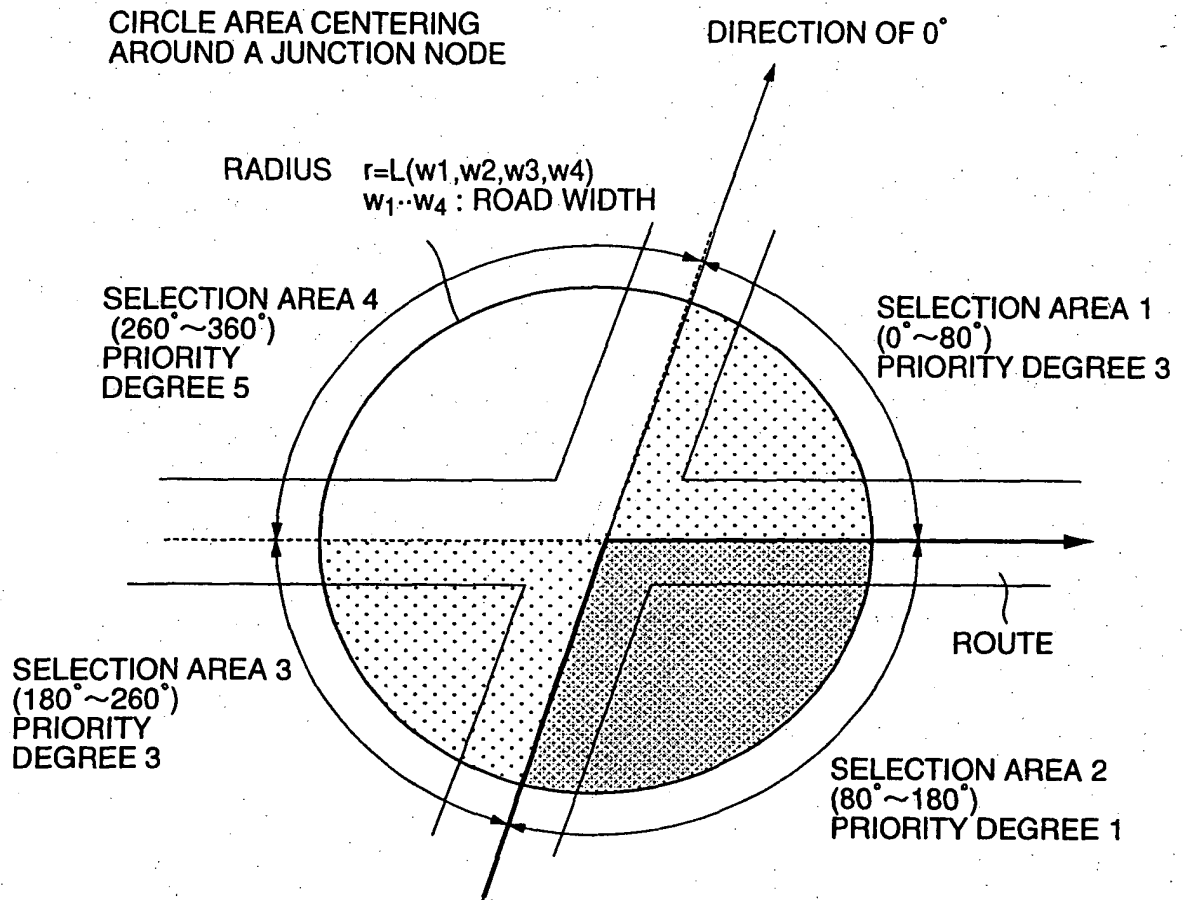


$n=3$

$$\theta_L = \theta_R = 90^\circ$$

JUNCTION PATTERN : T-CROSSING

**FIG.9B**



ANALYSIS RESULT OF JUNCTION PATTERN BY ROAD  
 PATTERN ANALYSIS UNIT

$C(n, \theta_0, \theta_L, \theta_R, P, Q) = \{4, 80, 80, 260, 100, 140\}$

FIG.10

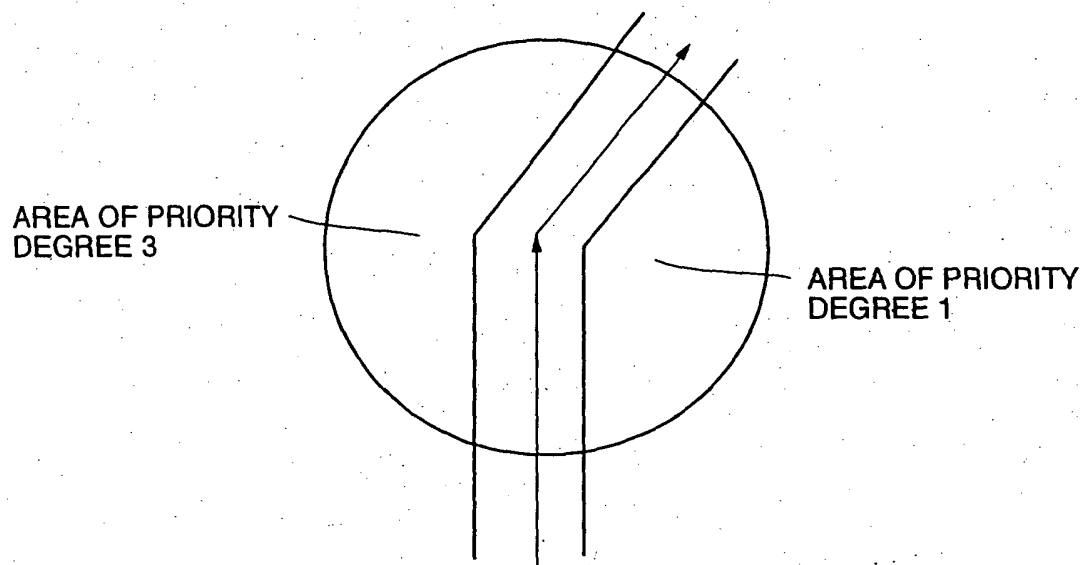


FIG. 11A

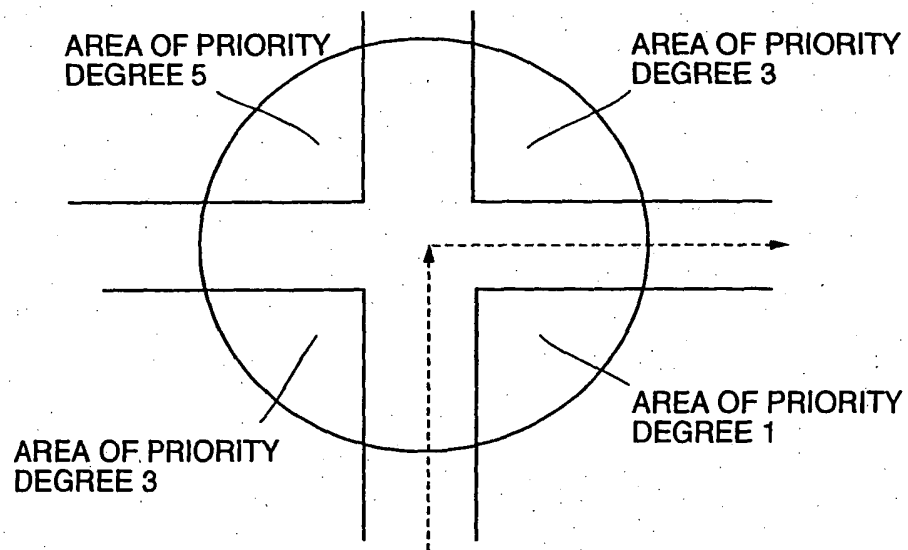


FIG. 11B

ID	NUMERICAL VALUE
NAME	CHARACTER SEQUENCE
CLASS	NUMERICAL VALUE
PRIORITY DEGREE	NUMERICAL VALUE
POSITION	(X, Y)( LATITUDE, LONGITUDE)

**FIG.12**

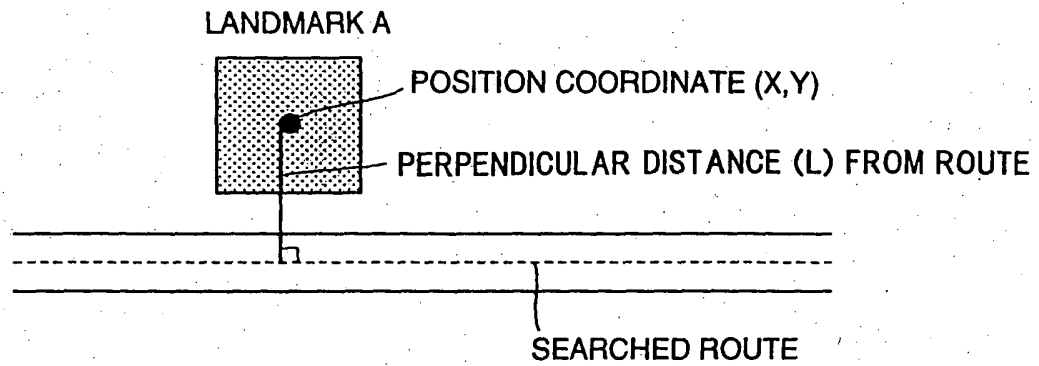


FIG.13A

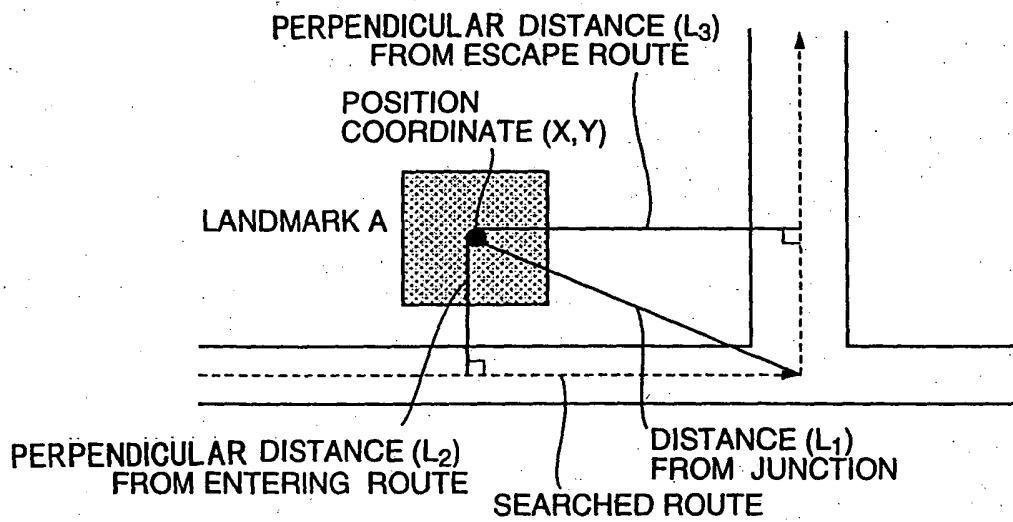


FIG.13B

- ▼ GO OUT KAWASAKI STATION , AND GO FORWARD TO YOKOHAMA BANK BY 50 METERS.
- ▼ GO FORWARD TO THE SOUTH ALONG THE STREET IN FRONT OF YOKOHAMA BANK BY 200 METERS.
- ▼ TURN TO THE LEFT AT T-CROSSING , GO FORWARD BY 20 METERS, AND GO FORWARD ALONG A CRANK BY FOLLOWING THE ROAD.
- ▼ TURN TO THE LEFT AT Y-CROSSING .

FIG.14A

- ▼ GO OUT KAWASAKI STATION , AND GO FORWARD TO YOKOHAMA BANK BY 50 METERS.
- ▼ GO FORWARD TO THE SOUTH ALONG THE STREET IN FRONT OF YOKOHAMA BANK BY 200 METERS.
- ▼ TURN TO THE LEFT AT A JUNCTION, GO FORWARD BY 20 METERS, TURN TO THE RIGHT, GO FORWARD BY 10 METERS, AND GO FORWARD TO THE LEFT BY 30 METERS.
- ▼ GO FORWARD TO THE LEFT AT A JUNCTION .

FIG.14B